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|-------------------------------|------------------------|---------------------|--|
| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/735,778 | MATSUMOTO ET AL. | |
| | Examiner | Art Unit | |
| | Dalena Tran | 3661 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/7/05.
2. ☒ The allowed claim(s) is/are 1-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Dalena Tran

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

1. This communication is an Examiner's reasons for allowance in response to application filed on 12/16/03, assigned serial 10/735778 and title "Vehicle dynamics control apparatus".

2. The following is the Examiner's statement of reasons for the indication of allowable subject matter:

After carefully reviewing the application in light of the amended claims and the additional search of all the possible areas relevant to the present application, a set of related prior art references has been found, but those prior art references are not deemed strong to make the application unpatentable. Thus, it is found that the application is now in condition for allowance.

As per claims 1, and 23, the prior art of record does not disclose a vehicle dynamic control apparatus, comprising: a yawing-motion control section that controls a yawing motion of a host vehicle by producing a yaw moment corresponding to a final desired yaw moment and acting in a direction that improves a driving stability when the driving stability is deteriorated, the final desired yaw moment being determined to be equal to a controlled variable of a lane deviation prevention control when the vehicle dynamics control is inoperative and determined to be equal to a controlled variable of the vehicle dynamics control when the vehicle dynamics control is operative. This limitation in combination with the other elements in the claim was not shown or suggested by the prior art.

As per claim 5, the prior art of record does not disclose a vehicle dynamic control apparatus, comprising: a yawing-motion control section that controls a yawing motion of

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a host vehicle by producing a yaw moment corresponding to a final desired yaw moment and acting in a direction that improves the driving stability when a driving stability is deteriorated, the final desired yaw moment being determined to be equal to a controlled variable of a lane deviation prevention control when the vehicle dynamics control is inoperative and determined to be equal to a controlled variable of the vehicle dynamics control when the vehicle dynamics control is operative. This limitation in combination with the other elements in the claim was not shown or suggested by the prior art.

As per claim 6, the prior art of record does not disclose a vehicle dynamic control apparatus, comprising: a yawing-motion control section that controls a yawing motion of a host vehicle by producing a yaw moment corresponding to a final desired yaw moment and acting in a direction that improves the driving stability when the driving stability is deteriorated, the final desired yaw moment being determined to be equal to the controlled variable of the lane deviation prevention control when the vehicle dynamics control is inoperative and determined to be equal to a controlled variable of the vehicle dynamics control when the vehicle dynamics control is operative. This limitation in combination with the other elements in the claim was not shown or suggested by the prior art.

As per claims 11, 18, and 24, the prior art of record does not disclose a vehicle dynamic control apparatus, and method comprising: compensating for a driving-stability criterion, which is used to determine execution of the vehicle-dynamics control, based on a controlled variable of the lane deviation prevention control so as to hold the vehicle dynamics control inoperative, when the vehicle dynamics control is inoperative. This limitation in combination with the other elements in the claim was not shown or suggested by the prior art.

As per claim 12, the prior art of record does not disclose initiating the vehicle dynamics control when the yaw-rate deviation exceeds a yaw-rate-deviation threshold value and wherein compensating for the driving-stability criterion is achieved by decreasing a yaw-rate deviation based on the controlled variable of the lane deviation prevention control. This limitation in combination with the other elements in the claim was not shown or suggested by the prior art.

As per claim 13, the prior art of record does not disclose wherein compensating for the driving-stability criterion is achieved by increasing a yaw-rate deviation threshold value based on the controlled variable of the lane deviation prevention control. This limitation in combination with the other elements in the claim was not shown or suggested by the prior art.

As per claim 17, the prior art of record does not disclose a method of balancing a vehicle dynamics control system and a lane deviation prevention control system, the method comprising: selecting a controlled variable of lane deviation prevention control, which is initiated for lane deviation avoidance purposes when a lane-deviation estimate corresponding to a future lateral deviation of the host vehicle from a driving lane exceeds a lane-deviation criterion in absence of a driver's intention for lane changing, as the final desired yaw moment when vehicle dynamics control is inoperative; and selecting a controlled variable of vehicle dynamics control, which is initiated for dynamic behavior improvement purposes when the host vehicle's dynamic behavior including at least the actual yaw rate exerted on the host vehicle is deteriorated, as the final desired yaw moment when the vehicle dynamics control is operative. This limitation in combination with the other elements in the claim was not shown or suggested by the prior art.

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Claims 1-24, are allowable over the prior art of record.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-F 6:30 AM-4:00 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner
Dalena Tran

A handwritten signature in black ink, appearing to read 'Dalena Tran', with a stylized flourish at the end.

February 1, 2006